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INTER-OFFICE CORRESPONDENCE

RICHMOND, VIRGINIA

(F)
CPF

To: Dr. G. E. Inskeep

Date: August 5, 1977

From: H. J. Grubbs, T. V. Van Auken, and W. R. Johnson

Subject: George Depaoli's Proposed Response to the Office Action on U.S. Serial 730,951 (PM 687; D&O-75-31/II).

We have examined the proposed response and would like to make the following comments:

1. The amendment to Claim 1 seems like a good idea.

2. The paragraph (p.5, ¶ 1) dealing with the Lee reference omits any mention of the important fact that our compounds cannot be prepared successfully in good yield by the method disclosed in Lee. This is an important point which should not be overlooked. More details are in our earlier memo on this Office Action.

3. The paragraph (p.5, ¶ 2) dealing with the Brodrikov reference does not mention the higher menthol equivalency per unit weight of menthyl isopropenyl carbonate. This is pointed out in the table below:

Compound	Wt. of Potential Menthol as a Percentage of the Wt. of the Compound	Source
Menthyl Isopropenyl Carbonate	65%	Present Case
Menthyl Dimethylallyl Carbonate	58%	Rundberg, *et al.*
Menthyl 2,3-Dimethylbut-1-en-3-yl Carbonate	55%	Extrapolated from Brodrikov

4. In the same paragraph the advantage our compound has in ease of polymerization is ascribed to steric hindrance in the Brodrikov compound. While this is one element of this advantage, a more important factor is probably the fact that an electronegative atom (oxygen) is bonded directly to the central carbon of the isopropenyl group. All monomers of our invention possess an oxygen atom of the carbonate moiety which is attached to the internal carbon of the polymerizable

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carbon-carbon double bond. This important structural element is missing from both Rundberg and Brodrikov and leads to an order of magnitude difference in the ease of polymerization.

5. In this same paragraph the statement that a polymer derived from the Brodrikov carbonate would give olefin on pyrolysis is incorrect and must be deleted ("Even if...cyclohexanol.").

6. Finally we feel that the argument that a cyclohexyl carbonate in Brodrikov does not give any suggestion to one skilled in the art of a menthyl carbonate is a rather weak argument, and may detract from the real case.

7. There is a typographical error in next-to-the last line of p. 3. Instead of "2-methyl-3-en-2-ol", the word should be "2-methylbut-3-en-2-ol".

With these exceptions, the response seems to be in good order.

/slb

cc Dr. T. S. Osdene
Mr. A. Palmer
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